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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,201	06/27/2003	Stephen Ressler	857_027 NP	7629
25191	7590	04/19/2006	EXAMINER	
BURR & BROWN PO BOX 7068 SYRACUSE, NY 13261-7068			FICK, ANTHONY D	
			ART UNIT	PAPER NUMBER
			1753	
DATE MAILED: 04/19/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/608,201

Applicant(s)

RESSLER, STEPHEN

Examiner

Anthony Fick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/7/05 8/8/05
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3 through 6, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Rodriguez (WO 00/30184).

Rodriguez discloses a photovoltaic roof tile as shown in figure 1. The tile comprises a photovoltaic element with collection surface, 120, a frame holding the photovoltaic element in place, 118 in figure 2, the frame comprising a first end portion and second end portion, left and right sides of figure 2, the first end portion engageable with the second portion, as seen in figure 1. Thus claim 1 is met. Figure 2 also shows the first end portion has an upward hook shape and the second end portion has a downward hook shape as in claim 3. Further, the tile of Rodriguez has a first end portion that is engageable to a first side portion of a standard roofing tile. The left side of figure 2 is engageable to side 21 of applicant's figure 2 depicting a standard roofing tile. Additionally the right side of figure 2 is engageable to side 22 of applicant's figure 2 depicting a standard roofing tile. As figure 1 already shows the two portions of Rodriguez's tile are engageable to each other, the tile thus meets claims 4 through 6. Also based on figure 2 and applicant's figure 2, the left side and right side of figure 2 are

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similar in shape to the shape of sides 22 and 21 of applicant's figure 2 depicting a standard roofing tile. Thus claims 8 and 9 are also met.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rodriguez as applied to claims 1, 3 through 6, 8 and 9 above.

The disclosure of Rodriguez is as stated above for claims 1, 3 through 6, 8 and 9.

The difference between Rodriguez and claims 2, 7 and 10 is the requirement of the length of the tile being a multiple of a length of a standard tile.

Rodriguez teaches the cells and tiles are sized to meet a specific application. The tiles can be curved like Spanish Tiles (pg 3 top paragraph).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to size the tiles as a multiple of the length of standard tiles because this improves the aesthetics of the building and the ease of construction. Also it is the Examiner's position that the tiles of Rodriguez are specifically sized to exactly match standard roofing tiles, thus the multiple of the length is one. Further as the claim does not require a specific multiple of the length, any length of the tile is equal to some real number multiplied by the length of a standard roofing tile. Thus it would be obvious to choose a tile length that is a multiple of a standard tile length as in claims 2, 7 and 10.

5. Claims 11, 12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rodriguez as applied to claims 1, 3 through 6, 8 and 9 above, and further in view of Mimura et al. (U.S. 6,336,304).

The disclosure of Rodriguez is as stated above for claims 1, 3 through 6, 8 and 9. Rodriguez further discloses in figure 3 the use of projections or underhang portions, 137. These projections can be varied in size and shape (pg 6, paragraph 2).

The difference between Rodriguez and claims 11, 12, 14 and 15 is the requirement of a retaining clip.

Mimura teaches a method for mounting solar panels on a roof. Figure 3 shows a retaining clip, 206, utilized to attach adjacent panels, 106 and 107, to each other and the roof structure, 204. The retaining clip comprises an underhang engaging portion thinner than the space between the underhang and the frame, a flat portion for attachment to the roof deck, and a portion connecting the flat portion and underhang-engaging portion (figure 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the retaining clip and underhang of Mimura within the roofing system of Rodriguez because the retaining clip substantially supports the wind endurance of the roofing system so the use of the clip reduces damage done by wind on the tiles (Mimura column 11, paragraph 5). Because Mimura and Rodriguez are both concerned with photovoltaic roof structures, one would have a reasonable expectation of success from the combination. Thus the combination meets claims 11, 12, 14 and 15.

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6. Claims 13, 16, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rodriguez as applied to claims 1, 3 through 6, 8 and 9 above, and further in view of Bressler et al. (U.S. 5,590,495).

The disclosure of Rodriguez is as stated above for claims 1, 3 through 6, 8 and 9. Rodriguez further discloses in figure 1 positioning the tiles on the roof by engaging the end portion of a tile with the side portion of the neighboring tile. This engaging is done for multiple tiles within the same row of tiles.

The difference between Rodriguez and claims 13, 16 and 17 is the requirement of roofing tiles included with the photovoltaic tiles within the roofing system.

Bressler teaches a solar roofing system. The system shown in figures 5B and 5C comprises photovoltaic tiles along with typical roofing tiles within the same system.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include conventional non photovoltaic tiles as in Bressler within the roofing system of Rodriguez because the inclusion of the conventional tiles allows an ornamental appearance of the photovoltaic modules (Bressler column 4, paragraph 4) and increases the design options and aesthetics of the roof structure. Because Bressler and Rodriguez are both concerned with photovoltaic roofing systems, one would have a reasonable expectation of success from the combination. Thus the combination meets claims 13, 16, 17 and 20.

7. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rodriguez in view of Bressler as applied to claims 13, 16, 17 and 20 above, and further in view of Mimura et al. (U.S. 6,336,304).

The disclosure of Rodriguez in view of Bressler is as stated above for claims 13, 16, 17 and 20. Rodriguez further discloses in figure 3 the use of projections or underhang portions, 137. These projections can be varied in size and shape (pg 6, paragraph 2). Rodriguez also discloses in figure 1 the method of attaching multiple courses of tiles whereby the tile in one course overlaps a tile in a different course such that the desired reveal length is not covered.

The difference between Rodriguez in view of Bressler and claims 18 and 19 is the requirement of a retaining clip.

Mimura teaches a method for mounting solar panels on a roof. Figure 3 shows a retaining clip, 206, utilized to attach adjacent panels, 106 and 107, to each other and the roof structure, 204. The retaining clip comprises an underhang engaging portion thinner than the space between the underhang and the frame, a flat portion for attachment to the roof deck, and a portion connecting the flat portion and underhang-engaging portion (figure 3).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the retaining clip and underhang of Mimura within the roofing method of Rodriguez in view of Bressler because the retaining clip substantially supports the wind endurance of the roofing system so the use of the clip reduces damage done by wind on the tiles (Mimura column 11, paragraph 5). Because Mimura and Rodriguez in view of Bressler are all concerned with photovoltaic roof structures, one would have a reasonable expectation of success from the combination. Thus the combination meets claims 18 and 19.

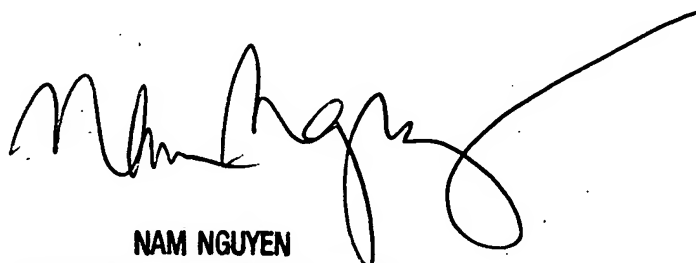
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Fick whose telephone number is (571) 272-6393. The examiner can normally be reached on Monday thru Friday 8 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anthony Fick *ADF*  
AU 1753  
April 14, 2006



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**SUPERVISORY PATENT EXAMINER**  
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